#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln No.:

09/940,141

Applicants:

Cheline et al.

Filed:

August 23, 2001

For:

Single-Modem Multi-User

Virtual Private Network

TC/A.U.:

2144

Examiner:

Peling Andy Shaw

Customer No.: 020991

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Date: Décen

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### REPLY BRIEF

Mail Stop Appeal Brief - Patents Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Pursuant to 37 C.F.R. § 41.41, the Applicants hereby respectfully submit the following Reply Brief in support of their appeal. This Reply Brief is in response to the Examiner's first answer dated November 1, 2006 and the Examiner's second answer dated November 24, 2006.

### (1) Status of Claims

Claims 1-9, 11-20, and 22-23 are pending. All of the claims are under final rejection.

- (2) Grounds of Rejection to be Reviewed on Appeal
- (A) Whether Claims I-5, 8-9, 11-16, 19-20 and 22-23 are anticipated under 35 U.S.C. §102 by U.S. Published Application 2002/0178361 to Genty ("the Genty application")?
  - (B) Whether claims 6 and 17 are unpatentable under 35 U.S.C. §103 over Genty?
- (C) Whether claims 7 and 18 are unpatentable under 35 U.S.C. §103 over Genty in view of U.S. Published Application 2002/0169988 to Vandergeest?

#### (3) Argument

# A. Applicant's Claim Language is Fully Supported by the Specification and Drawings

The Examiner's First and Second Answers stated that:

Appellant's quoted Figs. 4a-c teach the procedure of establish[ing] VPN connection for multiple clients. However, Figs. 4a-c do not show how multiple VPN connections could or would be established for multiple computers. Applicant is silent in what it takes to establish multiple VPN connections. Even if 4a-c is meant to apply to multiple computers, how multiple VPN connections could be coordinated, unless coordination is taking place in the modem. Thus Figs. 4a-c seems to be merely a program routine in handling incoming multiple VPN connection requests.

The Applicants respectfully disagree with these assertions. Specifically, as asserted in the Applicants' Appeal Brief and described in the Applicants' specification, FIGs. 4a-c "are flow charts for establishing multiple VPN tunnels over a single modem." Specification, page 21, lines 21-22. A user requests the initiation of a VPN session (step 402 of FIG. 4a). The request is received (step 404) and a login interface is transmitted (step 406) to the client computer. The login interface is received by the client computer (step 408). Login details (e.g., username, password) as well as other information (e.g., a SecurID token) are transmitted to the modem (step 410). The Media Access Control (MAC) address and/or the IP address of the computer is determined and stored at the modem (step 414). The modem then configures its security settings (step 415), for example, using an IPSec implementation. The modem then communicates with an authentication server to determine if access should be granted (steps 416-428).

If access is granted, a VPN tunnel is established between the client having the stored IP or MAC address and the server side system. Firewall rules are added to the packet filtering firewall to allow full access to the server side system from only the client computer where the request originated. Other users may form other tunnels via the same manner using this same procedure. See Applicants' Specification page 22, line 18, to page 26, line 20.

In other words, the approaches described by the Applicants with respect to FIGs. 4a-c are used repeatedly to establish multiple VPN tunnels between different client side systems and different server side systems over a single modern. Consequently, the Applicants are not silent as to "what it takes" to establish multiple VPN connections and have described how to do so in great detail.

# B. Genty Does Not Teach or Suggest Establishing Tunnels Between Different Client Side Computers and Different Server Side Systems

The Examiner's First and Second Answers asserted that "Genty shows the establishment of multiple VPNs (multiple users) through one modem (multiple sites via ISDN modem) via Internet (WAN connection)." The First and Second Answers further asserted that a "modem could be shared for multiple VPN connections as per item 100 in figure 1 and item 200 in figure 2 of Genty. As IPsec is used to implement VPN and a VPN connection is between two computers as shown on figure 2 of Genty, the figure 1 and paragraph 9 per Genty certainly has shown multiple computers per items 130, 150 and 170 must be able to establish multiple VPN connections with either servers (shown in figure 1) or each other." The Applicants respectfully disagree with these assertions.

Applicants' claims recite the establishment of a tunnel between a client side computer and a server side system using a modern. Thereafter, a different tunnel is established between a different client side computer and a new (i.e., different) server side system over the same modern.

In contrast, Genty does not teach or suggest that a single modem could be shared to establish multiple tunnels between different client computers and different destination computers as recited in the claims. In fact, Genty teaches exactly the opposite. Specifically, in FIG. 1 of Genty, computers in VPNs 120, 140, and 160 communicate with the same computer 100. There is no indication that any of the computers in networks 120, 140, or 160 communicate with any other or different server-side entity but the computer 100. Furthermore, even if computers within a particular VPN 120, 140, or 160 might communicate

with each other, any communication would be within the same network (i.e., not between different client side computers and different server side computers).

Additionally, with respect to the system illustrated in FIG. 2 of Genty, the computers 230, 240, 250, and 260 all communicate with the same computer 200. In fact, there is no indication that any of the computer systems 230, 240, 250, or 260 communicate with anything other than the computer system 200. In other words, in the system illustrated in FIG. 2 of Genty, different client side computers do not communicate with different server side systems using the same modem as recited in the claims.

### C. Pai is Silent as to Tunneling and Tunneling between Different Client Side Computers and Different Server-Side Computers

The Examiner's First and Second Answers asserted that U.S. Patent No. 6,711,138 to Pai shows a WAN that "is connected via DSL for multiple computers in a home network, i.e., a LAN. Thus sharing a modern for multiple computers connecting to a WAN is well known." The Applicants respectfully disagree with these assertions.

As an initial matter, the Applicants respectfully point out that the claims have not been rejected under the Pai reference or because the claimed subject matter was "well known." Additionally, the Applicants respectfully assert that they have not claimed "sharing a modem" as stated in the Examiner's First and Second Answers.

Furthermore, Pai does not teach or suggest what the Applicants have claimed, namely, the establishment of multiple tunnels between different client computers and different destination computers using the same modem. Specifically, the Pai reference does show a modem 120 that is part of a DSL system. However, Pai is silent as to the use of tunnels (indeed, the term "tunnel" is not mentioned in Pai) let alone whether any tunnels could connect different client computers to different server-side computers. Because of these reasons, the Applicants assert that the Applicants' claims are allowable over Pai alone or in combination with any other cited reference.

#### D. Conclusion

The Commissioner is hereby authorized to charge any additional fees which may be required to Deposit Account No. 50-0383.

Respectfully submitted,

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